miles west of El Centro), Los Angeles (200 miles northwest of El Centro), and Phoenix, Arizona (240 miles northeast of El Centro).

3.9.5 Temporary Accommodation

The nearest populated areas within the vicinity of the project are the cities of El Centro and Calexico, which both support numerous visitor servicing accommodations. These include hotels, motels, and some smaller "Bed and Breakfast" type establishments. The city of El Centro has approximately 1,000 guest rooms and Calexico has approximately 185 rooms. There are also several RV parks within the Calexico and El Centro areas.

In general, these areas see a marked increase in visitors and associated increase in demand for temporary accommodations from October through March. During that period, the availability of temporary accommodation is somewhat more limited. According to interviews with lodging representatives, the "high" season, when guest accommodations are most limited, peaks around January.

3.10 Water Quality

Water volume and quality issues associated with the proposed project are dominated by the water used and discharged by the LRPC and TDM power plants in Mexico. The power plants will require water for the cooling and steam generation processes. Steam is produced in the HRSGs (heat recovery steam generators) for the steam turbine, which utilizes steam to generate electric power. The steam leaves the steam turbine and is recondensed in the cooling towers to start the process again. The water utilized by the power plants is mostly replacement for the water that is evaporated in the cooling towers and the steam generation process.

The water utilized is treated prior to use. Gray water is brought to the power plants and is chlorinated, lime-softened, and clarified. A portion of the water, after being clarified, is utilized as make-up for the cooling towers. The remaining water, that is not sent to the cooling towers, is sent to a filtering and demineralizing system, which prepares the water to be used in the steam generation process. There will be no water usage or discharge in the United States associated with the proposed transmission lines north of the international border. National Pollutant Discharge Elimination System stormwater construction permits will be required for the construction of the transmission lines in the U.S.

3.10.1 U.S.-Mexico Water Law

There exist treaties pertaining to water rights and water issues between the United States and Mexico. The treaties address a number of issues, including quality of flows between the countries, for particular river bodies.

Specific to the study area, the New River flows northerly from Mexico into the United States. There exist no treaty obligations between the United States and Mexico that dictate the amount of water that is to flow into the New River. The International Boundary and Water Commission Minute 264 establishes certain water quality criteria for water in the New River flowing into the United States. The standards include that the river should be free of trash, untreated wastewater, and of toxics, sludge, and pesticides in harmful concentrations. The chemical parameters that are to be monitored according to the minutes are biochemical oxygen demand (BOD_5), chemical oxygen demand (COD), acidity or alkalinity (pH), dissolved oxygen, and fecal coliform organisms. No other parameters are outlined (for example, total dissolved solids [TDS] are is not specified), and as indicated there are no volumetric commitments under this agreement between the U.S. and Mexico.

There is no legal requirement in the U. S. or in Mexico which prescribes cooling technology to be used by power plants. Facilities in Mexico, as in the United States, are permitted to use any cooling technology provided that water is available in sufficient quantities, that receiving bodies can support the quantities of water to be discharged, and that the environmental requirements are met.

3.10.2 Salton Sea

This discussion of the Salton Sea is based in part on the January, 2000 Draft Salton Sea Restoration Project Environmental Impact Statement/Environmental Impact Report.

The largest body of water in the study area is the Salton Sea, with an estimated volume of water of 7,400,000 acre-feet. The Salton Sea was formed when flood flows from the Colorado River broke through a temporary diversion that had been designed to bypass the Imperial Canal. The Imperial Canal, which was routed from the Colorado River to the Imperial Valley through Mexico, was completed in 1901, but by 1904 it had become blocked by sediment. On October 11, 1905, a dike failed and nearly the entire flow of the Colorado River flowed uncontrolled into the Salton Basin for the next 18 months.

The Salton Sea is a terminal lake, with no outlet to the ocean, and is a repository for agricultural and municipal wastewater. The majority of water flowing into the Salton Sea is from the Alamo River (45.5 percent), the New River (32.1 percent), and agricultural drains (7.8 percent). The Whitewater River, San Felipe Creek, Salt Creek, groundwater, direct precipitation, and other inflows make up the remaining 14.6 percent (Table 3.10.1). Total yearly inflow is approximately 1,363,000 acre-feet/year, which is approximately equal to the water evaporation rate of the Salton Sea.

In 1998, in accordance with Section 303(d) of the Clean Water Act, the Salton Sea was listed by the California Regional Water Quality Control Board as an impaired surface water body. Four of the tributaries to the Salton Sea also are listed as impaired: the New

TABLE 3.10.1
SOURCES OF SALTON SEA INFLOW

Source of Inflow	Total Average Annual Inflow in Acre-Feet	Percent Contribution to Total Inflow
Alamo River	620,000	45.5
New River	438,000	32.1
Agricultural Drains	106,000	7.8
Whitewater River	79,000	5.8
Ground Water	50,000	3.6
Direct Precipitation	46,500	3.4
San Felipe Creek	5,500	0.4
Salt Creek	1,000	0.1
Other	17,000	1.3
TOTAL	1,363,000	100.0

SOURCE: January 2000 Draft Salton Sea Restoration Project Environmental Impact Statement/ Environmental Impact Report (USGS stream gage data 1960-1998; Hely et al. 1966; Ogden 1996).

River, the Alamo River, the Coachella Valley Stormwater Channel, and the Imperial Valley Drains.

The Salton Sea is a sump not only for the water that flows into it but also for all of the salts, sediments, and other constituents dissolved in or transported by that water. Since the Salton Sea has no outlet, the loads of some of the constituents entering the Salton Sea will accumulate. One of these is salt loading, commonly measured as TDS. The Salton Sea originally had a salinity of only about 700 milligrams per liter (mg/l), but because of natural causes (mostly evaporation and the fact that it has no outlet to the ocean), it now has a TDS of about 44,000 mg/l (higher than seawater, which is roughly 35,000 mg/l). The salinity of the Salton Sea continues to rise and is expected to pass 50,000 mg/l by the year 2009.

The Salton Sea is a habitat for birds as well as fish. The Salton Sea is a link in the Pacific Flyway, as birds migrate along this coastal corridor. The Salton Sea provides a variety of habitats and ample food sources for these migratory birds as well as for resident bird populations. Food is readily available from the Sea and the agricultural fields that surround it. According to the Salton Sea Authority, there are approximately 400 species of birds that visit or permanently reside at the Salton Sea. In some years as many as 95 percent of the total population of eared grebes may use the Sea, 80 percent of the American white pelicans, 50 percent of ruddy ducks, and 40 percent of the American population of Yuma clapper rails. Nearly 40 percent of California's breeding by black skimmers takes place at the Sea, and the nesting colony of gull-billed terns is the largest in the western U.S. In addition, the Salton Sea has been stocked with several salt-water sportfish such as the orange-mouth corvina, sargo, and gulf croaker. In the mid to late 1970s, tilapia, a fish native to Africa, inadvertently entered the Sea and flourished.

3.10.3 New River

New River flow at the border is approximately 182,000 acre-feet per year. California Regional Water Quality Control Board (CRWQCB) water quality data at the international boundary show that the New River has an average TDS content of 2,600 mg/l, BOD_5 of 20 mg/l, and COD of 30 mg/l. As indicated, the CRWQCB has declared the New River as impaired.

3.10.4 Power Plant Cooling Water Source and Discharge

The primary source of water entering the Zaragoza lagoons, located west of Mexicali, is residential sewage. Other minor sources include stormwater runoff and industrial discharge water (both process and sewage). Although the lagoons discharge into a drain, which in turn discharges into the New River, they do not receive any water from the New River.

The Zaragoza facility currently receives and treats approximately 33,200 acre-feet/year of sewage water. The sewage water received by the Zaragoza facility is processed through 13 lagoons (settling ponds). The treatment process consists of primary treatment, in which the solids are settled out before the water is discharged into the New River. The New River flows northward and crosses the U.S. border at Calexico, California.

As a result of the constituents in the water, water flow in the New River carries biological disease vectors (pathogens), industrial contaminants (such as trace metals and volatile organic compounds), and agricultural wastes (nutrients and pesticides). The New River continues northward for about 60 miles into the Salton Sea, and as it flows receives additional inflows from mostly agricultural runoff in Imperial County.

The TDM and LRPC power plants have been permitted by Mexican authorities to receive, treat, and recycle sewer water from the Mexicali Zaragoza sewage treatment lagoons. The power plants have also received permits from Mexican authorities to discharge water to the federal water commission's (Comisión Nacional del Agua) water drains. The drains designated by CNA to receive the water discharged from the power plants will flow into the New River.